

Deliverable 11.3: ACTRIS IMP Data Management Plan

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1. About this document

This document defines the data policy and data management procedures in Horizon-2020 INFRADEV-2 project #871115 Aerosols, Clouds and Trace gases Research Infrastructure – Implementation Project (ACTRIS IMP). This document will be distributed to all ACTRIS IMP partners for their use and submitted to European Commission as an ACTRIS IMP deliverable 11.3. This data management plan is based on and serves as the continuation to the ACTRIS PPP Data Management Plan.

2. ACTRIS and ACTRIS IMP

The Aerosol, Clouds and Trace Gases Research Infrastructure (ACTRIS) is a Pan-European Research Infrastructure (RI) that coordinates activities for observing and documenting concentrations, understanding processes and quantifying impacts of short-lived atmospheric constituents on Earth's climate, air quality, human health and ecosystems.

The National Facilities (NFs), distributed in Europe and beyond, serve for the acquisition of reliable, accurate, and high-quality atmospheric data to document the 4-D distribution and variability of aerosol, clouds and trace gases in the natural atmosphere (Observational Platforms), and for understanding the complex interactions and processes driving this variability in the natural or controlled atmospheres (Exploratory Platforms). ACTRIS includes eight Central Facilities (CFs) – six Topical Centres (TCs), the Data Centre (DC) and the Head Office (HO) – that are essential to ensure compliance of the measurements with standard operation procedures and data analysis, to coordinate user access to state-of-the-art data and facilities, and to provide tailored services to the scientific community and other stakeholders.

ACTRIS Implementation Project (ACTRIS IMP) is a coordination and support project for the implementation of ACTRIS. It lasts from 1/2020 till 12/2023 and is funded by the European Commission under INFRADEV-2 tool (Grant #871115). ACTRIS IMP is intended to support the implementation phase of ACTRIS and to support the process for ACTRIS to become a European Research Infrastructure Consortium (ERIC).

2.1 Definitions and key terminology

In this document the key terminology is used with the following definitions:

- Raw data: Raw and cleaned data produced by measurements, surveys or similar methods.
- Information: Raw data that has been processed, interpreted and put to context to make it more understandable. This includes also contact lists.

- Knowledge: Conclusions and reports based on information. This includes ACTRIS IMP deliverables and other documents produced or obtained during the project.

All these are discussed in this document as data, unless specified otherwise.

- Personal data: Any data or information linked to an identifiable individual person. This includes names, personal contact information etc.

For clarity, the key terminology for ACTRIS is used in this document as follows:

- ACTRIS IMP refers to the ACTRIS Implementation Project (H2020-INFRADEV-2019-2 GA 871115).
- ACTRIS refers to the infrastructure to be implemented.
- ACTRIS community refers to all research institutions providing data or services within ACTRIS.
- Interim ACTRIS Council (IAC) is the council of ministry representatives and funding agency representatives nominated by the ministries. This is the highest decision-making body in ACTRIS for the implementation of the infrastructure.

3. Scope of ACTRIS IMP Data Management Plan

The scope of this data management plan is to describe the data sets produced in ACTRIS IMP, and the methods and policies used for managing them. ACTRIS IMP participates in Open Research Data Pilot (ORPD), which is also taken into account in the data management plan.

The research data collected in other ACTRIS-related projects is not within the scope of this data management plan, nor is the research data which is to be collected within the research infrastructure ACTRIS once it is operational.

During ACTRIS IMP the main party responsible for ACTRIS IMP data management is the ACTRIS Head Office at Finnish Meteorological Institute, the party coordinating ACTRIS IMP.

3.1 ACTRIS IMP data

The data collected in ACTRIS IMP is not atmospheric research data, but rather data on the ACTRIS users and implementers, and their views on the implementation, provision and use of ACTRIS services. This data originates from surveys made during ACTRIS IMP and from the institutions participating in the project. ACTRIS IMP data also includes a lot of contact information of different organizations and individuals.

As ACTRIS IMP collects no research data, the total amount of data is estimated to be small, less than 1 GB. For this reason, there are no resources allocated specifically for ACTRIS IMP data management, but the data management tasks are included in work packages collecting the data, and in the general project management in WP11.

3.2 Types of data collected or produced within ACTRIS IMP

There are three types of data collected within ACTRIS IMP. These are:

- Documents, including but not limited to, project documentation, project deliverables, and other documents produced in the project, contracts, and CVs. Also documents prepared for/by the Interim ACTRIS Council (IAC) belong to this category.
- Contact information of ACTRIS IMP beneficiaries, linked third parties and associated partners, national ACTRIS contact persons and organizations related to ACTRIS. These lists include names, affiliations and e-mail addresses of individual persons working at the institutes.
- Raw and processed data collected through surveys and interviews within ACTRIS IMP. These data contain views on the needs of the users of the ACTRIS services, the assessment of position of ACTRIS in the European Innovation Ecosystem and the socio-economic impacts that ACTRIS services have now and in the future.

The management policies and procedures of these three types of data differ from each other in some respect. However, they follow the same general ACTRIS IMP data policy described in next chapter. The three data types are then described in detail one by one.

4. General data policy in ACTRIS IMP

The main principle of ACTRIS and of ACTRIS IMP is to have a data policy that is as open as possible, without compromising the protection of personal and confidential data. The data policy described here affects data collected and produced within the framework of ACTRIS IMP. It does not affect other ACTRIS data.

For ACTRIS IMP the data policy is as follows:

1. Within ACTRIS IMP data are collected for two reasons:
 - To guide and progress the implementation of ACTRIS.
 - To ensure the smooth implementation of ACTRIS IMP.
2. If and when data collected are relative to individual persons, the persons shall be informed about the purpose why the data are collected and how it will be used.
3. All data should be anonymized by removing any parameters making the data identifiable to individual persons from the rest of the data at as early stage as possible.
4. Retention of data must be carefully considered, and if some data are no longer necessary, they shall be destroyed.
 - All personal data that is limited to ACTRIS IMP shall be destroyed after the end of the project.

- If any other data than personal data collected during ACTRIS IMP remains relevant to ACTRIS after the project, it shall be transferred to the party coordinating ACTRIS after ACTRIS IMP, which will store and use it under the same or similar conditions as ACTRIS IMP.
5. Data security and storage must be in accordance with the sensitivity of the data.
 6. Access to data shall be secured, well-defined and shall be in accordance with long-term preservation.
 7. All project deliverables are public, unless marked confidential in the Grant Agreement. The deliverables will be openly available at ACTRIS web site www.actris.eu.
 8. Other project documents are public unless they contain sensitive data or are declared confidential by European Commission or by Interim ACTRIS Council. By default, the project documentation shall be available at ACTRIS web site www.actris.eu.
 9. All data sets containing personal data shall be characterized in a form stating the type, collection method and purpose of the data, and where and for how long the data will be stored. This form shall also identify who is in charge of keeping the data set and who has access to it.
 10. This data policy comes into force when the ACTRIS IMP data management plan is submitted and distributed to ACTRIS IMP beneficiaries. It does not affect actions taken before that time, but does affect later actions for the data collected before that time.

4.1 FAIR data

ACTRIS IMP participates in Open Research Data Pilot, which requires the policy of FAIR data (findable, accessible, interoperable and re-usable research data). **As most of ACTRIS IMP data is not research data, the concept of FAIR data is not applicable as such.** The only ACTRIS IMP data that can be considered research data are the answers to different questionnaires conducted within ACTRIS IMP. These data contain personal data when collected but shall be anonymized at as early stage as possible. The following sub-chapters address only these data.

4.1.1 Making the data findable

The data will be accompanied with metadata clarifying the meaning of the data and how the data have been collected. The metadata can be provided without the actual data, if requested. Dataset naming should clearly describe the content of the data.

4.1.2 Making the data accessible

As the estimated interest in the survey data outside ACTRIS community is very limited, these data will be available for use outside ACTRIS IMP or ACTRIS only upon request made to ACTRIS Head Office or later to other party coordinating ACTRIS. These data are very different than the observational data produced by ACTRIS and do not fit into the concept of ACTRIS Data Centre.

4.1.3 Making the data interoperable

The data will be stored in a format readable by commonly used data management tools or office software. The data sets are small and specified, so direct automatic interoperability of the data with other external data sets is not sought for.

4.1.4 Increase data re-use

As the processed data will be public, no licences are needed for re-use of the data as long as the data source is acknowledged.

4.1.5 Allocation of resources

The amount of data produced by ACTRIS IMP is rather small, and therefore there are no resources specifically allocated for making the data FAIR. The resources for data collection are allocated in the work packages and tasks collecting the data. Making the data available is under the responsibility of WP11 (Project management and ethics).

4.2 GDPR compliancy

The ACTRIS IMP data management plan aims to fulfil the requirements of EU regulation 2016/679 General data Protection Regulation (GDPR), having taken effect on 25.5.2018. This chapter describes the ACTRIS IMP data management procedures from the GDPR point-of-view. As GDPR applies only to personal data, the following protocols are not required for non-personal or anonymized data. It is worth noting that most of the personal data collected during ACTRIS IMP include only names, work positions and contact details. CVs of individual persons include more personal data. The position of data protection officer was established at FMI in February 2018, this data management plan has been approved by the data protection officer.

4.2.1 Single set of rules and one-stop shop

As FMI is coordinating ACTRIS IMP, the project data management is under the supervision of Finnish GDPR Supervisory Authority (SA). For individual tasks collecting and using personal data in other countries, the data management is under the national SAs of those countries.

4.2.2 Responsibility and accountability

The responsibility of protection and use of personal data is on the party collecting the data. For surveys and questionnaires it is the leader of the work package conducting the survey. The survey and questionnaire answers shall be anonymized at as early stage of the process as possible, and the data

making it possible to connect the answers to individual persons shall be destroyed. The party responsible for e-mail lists etc. is ACTRIS Head Office at FMI.

4.2.3 Consent

The consent of the survey participant will be asked in all surveys conducted within ACTRIS IMP. This will include a description of how and why the data are to be used. The survey participants will not include children or other groups needing a supervisor. More information on the survey and consent procedures is provided in ACTRIS IMP deliverables 11.2, 12.1 and 12.2. When asking for someone's contact information, the party asking shall explain why this information is asked for.

4.2.4 Data Protection Officer

ACTRIS IMP does not have its own data protection officer, but it uses the services and expertise of FMI data protection officer, appointed in February 2018. In case persons responsible for the surveys or survey participants would like to contact the DPO, they first contact the ACTRIS Head Office at FMI (actris-head-office@helsinki.fi).

4.2.5 Pseudonymisation

Due to the limited amount and less harmful nature of the personal data that is collected within ACTRIS IMP, no pseudonymisation will be used. Data will be protected by other means of data security.

4.2.6 Data breaches

In case of data breaches, the person responsible for the breached data shall notify both the national SA and ACTRIS Head Office as soon as possible, but at maximum within 72 hours. The individuals whose personal data were breached shall also be notified without undue delay. It is worth noting that, due to the nature of personal data collected during ACTRIS IMP, the damage that can be caused by a data breach is expected to be limited.

4.2.7 Right to erasure

If a person wishes his/her personal data to be erased, that can and shall be done. It is easy to do from the contact lists controlled by ACTRIS Head Office or WP leaders conducting the surveys. If a person wants his/her personal data to be removed from a survey, the non-personal data shall remain in the analysis of the survey.

4.2.8 Data portability

By default, the personal data collected within ACTRIS IMP will be in in electronic form, mostly in Microsoft Excel file forms .xls or .xlsx. These files can be read by Microsoft Excel, which is commonly used worldwide. If a user requests to have his/her personal data for another purpose outside ACTRIS IMP, there should be no technical limitations for providing them.

4.2.9 Privacy by design and by default

Personal data collected during ACTRIS IMP will be used only by project partners, including beneficiaries, linked third parties and Interim ACTRIS Council, and only for purposes needed for the implementation of ACTRIS. Even within the project, if someone of the project consortium asks for personal data, the person holding the data should consider whether that data are needed for the implementation of the project. If personal data are provided, the data shall not be distributed further within or outside of the project.

4.2.10 Records of processing activities

Records of data processing and plans for the use of data will be kept by ACTRIS Head Office and WP leaders of those WPs that collect personal data.

5. Data type descriptions and management

5.1 Project documentation

5.1.1 Data collected

The data consists of ACTRIS IMP deliverables and other project documents, including documents provided for/by IAC.

5.1.2 Collection method

These documents are created by ACTRIS IMP beneficiaries within the project, using their knowledge, raw data collected during the project, and other sources of information.

5.1.3 Ethical issues

Some deliverables are marked confidential by the European Commission, and IAC is expected to classify some documents confidential. Some documents (contracts, CVs) include personal information. Some of the work is also performed outside EU, but not parts collecting or using personal information. These ethical issues are described in deliverables 11.1 and 12.2.

5.1.4 Access management

Public project documentation will be available via ACTRIS web site www.actris.eu. Confidential documentation, if relevant to ACTRIS IMP partners or IAC, will be made available via www.actris.eu only to those who need access to the documents. Different levels of access rights can be used.

5.1.5 Storage and back-up during ACTRIS IMP

During ACTRIS IMP the documents will be stored and backed up at ACTRIS server hosting the ACTRIS website. A back-up copy will also be kept at ACTRIS Head Office at Finnish Meteorological Institute (FMI). Those documents that are available only in paper form will be stored at FMI register and a copy at ACTRIS Head Office in a locked cabinet.

5.1.6 Long-term preservation

After the end of ACTRIS IMP the documents will be transferred to the party coordinating ACTRIS after the end of ACTRIS IMP.

5.1.7 Retention

All ACTRIS IMP documentation will be kept for later use after the end of the project, unless specified otherwise.

5.1.8 Sharing policy

All project deliverables are by default public, except those marked confidential in the Grant Agreement. Other project documentation is public except for those documents containing personal or sensitive data, and those documents declared confidential by IAC.

5.1.9 Data security

ACTRIS server is maintained by the Norwegian Institute for Air Research (NILU) in Norway, who are also responsible for keeping the server data security up to date. The backups at FMI will be protected by FMI data security measures. Non-electronic data will be stored in a locked cabinet at ACTRIS Head Office, and later at the party coordinating ACTRIS after the end of ACTRIS IMP.

5.1.10 Responsible party

The party responsible for storage, access and availability of ACTRIS IMP documentation is ACTRIS Head Office and later the party coordinating ACTRIS after the end of ACTRIS IMP.

5.2 Personal and institutional contact information

5.2.1 Data collected

The data consists of lists of ACTRIS IMP beneficiaries, linked third parties and associated partners, ACTRIS national contact persons and IAC member contact information. The lists contain names, affiliations, roles and contact information of individual persons contributing to ACTRIS IMP, ACTRIS and IAC. WP-specific contact lists are also expected to be set up during the project if needed.

5.2.2 Collection method

The contact information has been/will be asked by ACTRIS Head Office from ACTRIS IMP beneficiaries, from national ACTRIS contact persons, from ministry representatives or ESFRI delegates of potential ACTRIS member countries and from known or potential users of ACTRIS data or services identified within ACTRIS IMP or in the past projects. Contact information is also collected from new associated partners of the project.

5.2.3 Ethical issues

These data contain personal information, making it subject to ethical issues.

5.2.4 Access management

These data will not be publicly available as such. The lists of different institutions participating in ACTRIS IMP can be published in ACTRIS web site www.actris.eu without the contact details. The lists including contact information might be distributed to ACTRIS IMP beneficiaries or to national ACTRIS contact persons if that is needed for the implementation of ACTRIS IMP. ACTRIS Head Office will manage the access rights to these data.

5.2.5 Storage and back-up during ACTRIS IMP

These data will be stored and backed up by ACTRIS Head Office. WP-specific contact lists will be stored and backed up by the respective WP leaders.

5.2.6 Long-term preservation

After the end of ACTRIS IMP there is no legal ground for the project partners to keep personal contact information data, and therefore they shall be destroyed.

5.2.7 Retention

At the end of ACTRIS IMP the contact information collected during ACTRIS IMP will be destroyed.

5.2.8 Sharing policy

The contact information data will not be made publicly available. They can be shared between ACTRIS IMP participants for purposes relevant to the implementation of ACTRIS.

5.2.9 Data security

Contact information stored at ACTRIS Head Office will be secured by FMI data security and firewall. WP-specific contact information collected in the work packages are secured by the security protocols of the respective work packages.

5.2.10 Responsible party

The party responsible for storage, access and availability of general contact information data within ACTRIS IMP is ACTRIS Head Office. WP-specific contact information is in the responsibility of the respective WP leader.

5.3 Surveys and questionnaires

5.3.1 Data collected

The data consists of opinions of individual persons on various aspects of ACTRIS, mainly attributed to the needs of the users of the ACTRIS services, the assessment of position of ACTRIS in the European Innovation Ecosystem and the socio-economic impacts that ACTRIS services have now and in the future.

5.3.2 Collection method

These data are collected via surveys, questionnaires and interviews of ACTRIS IMP beneficiaries, national ACTRIS contact persons, and known or potential users of ACTRIS data or services identified within ACTRIS IMP or in the past projects.

5.3.3 Ethical issues

As raw data, these data often include personal data, typically name and contact information of the person answering the questions. In processing the data the personal and personally identifiable data shall be separated from the other data at as early stage as possible, making the rest of the data anonymous and thus publishable. Only the anonymized data shall be used for analysis. The ethical issues linked to collection and use of these data are explained in ACTRIS IMP deliverables 11.2 and 12.1.

5.3.4 Access management

As the survey data are not expected to be of interest to the larger public, it will be available for use outside ACTRIS IMP or ACTRIS only upon request made to ACTRIS Head Office or later to the party coordinating ACTRIS after the end of ACTRIS IMP.

5.3.5 Storage and back-up during ACTRIS IMP

During ACTRIS IMP the raw and processed data and the informed consent forms will be stored at the institute that is the leading WP in charge of collecting and analysing the data. A back-up copy will also be kept at ACTRIS Head Office or on the ACTRIS server.

5.3.6 Long-term preservation

After the end of ACTRIS IMP the data will be transferred to the party coordinating ACTRIS after the end of ACTRIS IMP. No personal data will be transferred.

5.3.7 Retention

Personal data may be stored during the project only for keeping the track of who has answered the questionnaire. After the end of ACTRIS IMP this personal data shall be destroyed. The data without personal information will be stored at the party coordinating ACTRIS after the end of ACTRIS IMP.

5.3.8 Sharing policy

When personal data have been removed, the rest of the data are public and can be shared to anyone, as long as ACTRIS IMP is acknowledged as the data source.

5.3.9 Data security

The data are secured by the data security measures and protocols of those institutes where it is stored. The back-up data sets at FMI will be secured by FMI data security measures and protocols.

5.3.10 Responsible party

The party responsible for storage and analysis of the survey data collected in ACTRIS IMP is the WP leader collecting and analysing the data. The back-up data and access to the data are under the responsibility of the ACTRIS Head Office, and later the party coordinating ACTRIS after the end of ACTRIS IMP.